

CLAIMS

- [1] A perpendicular magnetic recording disk for use in perpendicular magnetic recording, said perpendicular magnetic recording disk characterized by comprising a substrate, a ferromagnetic layer formed on said substrate, having a granular structure, and containing an oxide, silicon (Si), or an oxide of silicon (Si), and a stacked layer formed on said ferromagnetic layer and having a first layer containing cobalt (Co) or a Co alloy and a second layer containing palladium (Pd) or platinum (Pt).
- [2] A perpendicular magnetic recording disk according to claim 1, characterized in that said ferromagnetic layer has crystal gains mainly made of cobalt (Co) and grain boundary portions mainly made of the oxide, the silicon (Si), or the oxide of silicon (Si).
- [3] A perpendicular magnetic recording disk according to claim 1 or 2, characterized in that the content of the silicon (Si) in said ferromagnetic layer is 6at% or more.
- [4] A perpendicular magnetic recording disk according to claim 1 or 2, characterized in that the content of the silicon (Si) in said ferromagnetic layer is 8at% to 15at%.
- [5] A perpendicular magnetic recording disk according to any of claims 1 to 4, characterized in that a spacer layer is provided between said ferromagnetic layer and said stacked layer.
- [6] A method of manufacturing a perpendicular magnetic recording disk for use in perpendicular magnetic recording and having at least a magnetic recording layer on a substrate, said method characterized by,
in a step of forming said magnetic recording layer comprising, on said substrate, a ferromagnetic layer of a granular structure containing silicon (Si) or an oxide of silicon (Si) between crystal grains containing cobalt (Co) and a

stacked layer having a first layer containing Co or a Co alloy and a second layer containing palladium (Pd) or platinum (Pt), forming said ferromagnetic layer on said substrate by sputtering in an argon gas atmosphere and then forming said stacked layer by sputtering in an argon gas atmosphere at a gas pressure lower than a gas pressure used when forming said ferromagnetic layer.